



# MSPC Advisory Circular

ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF AIR PROGRAMS • MOBILE SOURCE POLLUTION CONTROL PROGRAM

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Subject: Optional Test Procedures for Special Purpose Vehicles

## A. Purpose

The purpose of this Advisory Circular is to provide a special test procedure for qualifying for Certificates of Conformity for vehicles which, for certain reasons, can not readily be certified under either the light duty vehicle or heavy duty engine emission standards.

## B. Background

The definition of light duty vehicles in the Regulations (40 CFR 85.1 (a) (5) includes not only all vehicles of less than 6000 lbs. GVW, but also all passenger-carrying vehicles with capacity for 12 or fewer passengers. This has created a situation in which certain types of light duty vehicles of more than 6000 lbs. GVW could under some circumstances be deemed to be heavy duty. Two manufacturers have sought guidance as to how, and under what provisions of the Regulations, such vehicles should be certified.

In some such cases, manufacturers may elect to utilize in such vehicles engines that are essentially the same as engines used in vehicles that are certified for light duty use. Since such vehicles are normally used under conditions essentially identical to light duty vehicle operation, and since the emission standards for light duty vehicles are substantially more stringent than are the emission standards for heavy duty vehicles, this is a practice to be encouraged so long as the basic emission limitations are met under such circumstances.

The long-term solution to this situation lies in the establishment of an intermediate class of vehicles, possibly a class encompassing vehicles with GVW from approximately 6000 to 10,000 lbs. The EPA is contemplating such a step as a part of the revision of heavy duty engine emission standards that is expected to be effective with the 1976 model year. In the interim, however, an alternative procedure is needed. For that reason, under authority of Sec. 85.8 of the Regulations, this Advisory Circular specifies a special testing procedure for vehicles that fall into this category.

## C. Types of Vehicles Covered by this Special Test Procedure

Vehicles intended to be covered under this special test procedure include, but are not limited to, vehicles of 6000 lbs. GVW or more and used for the following essentially property-carrying purposes:

- a. ambulances
- b. hearses
- c. flower cars
- d. motor homes

**D. Applicability of Special Test Procedures**

1. For any such vehicles, a manufacturer may, at his option, utilize certified heavy duty engines without any reference to this Special Test Procedure.
2. However, if a manufacturer elects to use in such vehicles an engine that is designed for, and qualified under, the light duty vehicle emission standards, and if such engine because of its design is not capable of successfully completing the heavy duty engine durability procedures which require 1,000 hours (diesel) or 1,500 hours (gasoline) of high load operation, he may apply for use of this Special Test Procedure. Such application would normally be made as a part of the Part I application for certification.
3. It is the responsibility of the vehicle manufacturer, not of the engine manufacturer, to apply for the use of such Special Test Procedures.

**E. Special Test Procedure**

1. The Special Test Procedure will consist of the following:
  - a. Light duty durability mileage accumulation and testing; and
  - b. light duty emission data vehicle mileage accumulation and test at 5500 lb. dynamometer inertia loading; and
  - c. heavy duty engine emission test.
2. If, in the above specified testing, the vehicle in question meets the applicable emission standards for light duty vehicles, and the engine itself at the conclusion of the 4,000 mile light duty emission data vehicle test also meets the heavy duty engine emission standard, a Certificate of Conformity will be issued for the vehicle.
3. To conduct the heavy duty engine test, the engine must be removed from the emission data test vehicle at the conclusion of the light duty vehicle test and installed on an engine dynamometer, and the regular heavy duty engine emission test conducted.
  - a. If the engine in question can qualify under the heavy duty engine standards without any change in calibration from its calibration in the light duty test, no additional engine hour accumulation will be required.
  - b. If recalibration of ignition or fuel system components is necessary to allow the engine to qualify under the heavy duty engine standards, the manufacturer may be required to run a new engine on the engine dynamometer, in accordance with the heavy duty engine operating schedule, for 125 hours prior to the conduct of the heavy duty engine emission test.

**F. Labeling of the Engine, and Engine Calibration in the Vehicle.**

1. The provisions of 40 CFR 85.4(b) will apply to the labeling of engines installed in vehicles certified under this Special Test Procedure. No other labels will be required in the engine compartments of the vehicles themselves.

2. The calibration of engines installed in vehicles certified under this Special Test Procedure, and the calibration data on the engine labels, shall be consistent with the calibration of the test engine at the time at which it qualified under the heavy duty portion of the Special Test Procedure described in E(3) above.

**G. Evaporative Emission Control System**

Since vehicles certified under this Special Test Procedure generally utilize engines that are also utilized in light duty vehicles certified under the normal light duty vehicle procedure, vehicles certified under this Special Test Procedure will be required to comply with the light duty vehicle evaporative emission standard. If the manufacturer demonstrates, and the Administrator agrees, design of the vehicle certified under this Special Test Procedure is such that evaporative emission controls can not be installed, this requirement may be waived.



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